Abstract of the Disclosure

A method and device are disclosed for executing applications that involve secure transactions and or conditional access to valuable contents and/or services. The device includes an integrated circuit that has a central processing unit, an internal memory, input/output connections for external memory and connection ports for an external interface circuit incorporated on a single chip. The internal memory includes a secured memory area accessible to the central processing unit only. The secret memory area contains a secret encryption key used for encryption of sensitive data stored in the extenal memory. Preferably, the chip includes a random number generator. A hash value is obtained from a random number generated by the random number generator, the random number with its hash value are encrypted with the secret key, and the encrypted random number with its hash value are stored in the external memory. As a result, the device has a chip that is uniquely paired with the external memory.